



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,163	01/16/2002	Tohru Ohsaka	02922.000071	2327
5514	7590	12/18/2003	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			NORRIS, JEREMY C	
			ART UNIT	PAPER NUMBER
			2827	

DATE MAILED: 12/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/046,163	Applicant(s) OHSAKA, TOHRU	
	Examiner Jeremy C. Norris	Art Unit 2827	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>0102</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because the use of the phrase "is provided". Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Each of the claims recites the limitation that the invention contains "at least one power supply line or a ground line", then further limits *both* the ground line and the power supply line in differing ways. This is confusing because it is unclear whether the invention must necessarily have a both a ground line and a power supply line or is just one type of line sufficient.

Additionally, regarding claim 8, the claim is incoherent and therefore provides no further limitations on the claim from which it depends. This interpretation has been used for examination.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2827

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,084,779 (hereafter Fang).

Fang discloses, referring to figures 4A and 4B, a multi-layered printed wiring board having at least three wiring layers (12, 16, 18, 22) each at least having at least one power supply line or a ground line, and another kind of line (see col. 4, lines 30-50), said wiring layers each having an outer edge, comprising: said ground line (48) formed at the outer edge of at least one of said wiring layers (22); a basic power supply line (20) formed inside said ground line; said at least one power supply line (40) extending from said basic power supply line; a plurality of electronic parts (one shown a plurality referred to, see col. 2, lines 20-25) mounted on at least one of said wiring layers (12); and wherein said at least one power supply line is wired to mounting positions of said electronic parts via at least one of said wiring layers (see 3, lines 45-50) [claim 1], wherein said ground line and said basic power supply line are each shaped substantially in a form of annulus (see figure 4B) and arranged adjacent to each other [claim 2], comprising: a signal line provided in each of said wiring layers, said signal line connecting between ones of said electrical parts mounted on one of said wiring layers or connecting between ones of said electrical parts mounted on respective different ones of said wiring layers via at least one of said wiring layers; and wherein said power

supply line and said signal line are formed inside said basic power supply line (see col. 4, lines 30-50) [claim 3].

Similarly, Fang discloses, referring to figures 4A & 4B, a multi-layered printed wiring board having at least three wiring layers (12, 16, 18, 22) each at least having at least one power supply line or a ground line, and another kind of line (see col. 4, lines 30-50), said wiring layers each having an outer edge, comprising: said ground line (48) formed at the outer edge of at least one of said wiring layers (22); a plurality of electronic parts (one shown, a plurality referred to; see col. 2, lines 20-25) mounted on at least one of said wiring layers; said at least one power supply line (40) provided in a predetermined one of said wiring layers at a location inside said ground-line, said at least one power supply line being wired to mounting positions of said electronic parts via at least one other one of said wiring layers; a signal line provided in each of said wiring layers (see col. 4, lines 30-50), said signal line connecting between ones of said electrical parts mounted on one of said wiring ; layers or connecting between ones of said electrical parts mounted on respective different ones of said wiring layers via at least one of said wiring layers; and a ground pattern (14) formed over a region other than said power supply line and said signal line and connected to said ground line, [claims 4, 8] wherein said ground line and ground pattern are formed such that said ground line and ground pattern substantially entirely cover said multi-layered printed wiring board when said ground line and ground pattern are projected on one projection plane (see figure 4B) [claim 5], comprising: a basic power supply line (46) formed at the

outer edge of at least one of said wiring layers at a location adjacent to and inside said ground line (see figure 4B); wherein said power supply line is formed inside said basic power supply line and extends from said basic power supply line via at least one of said wiring layers such that said power supply line is wired to mounting positions of said electrical parts; and said signal line is formed inside said basic power supply line, said signal line connecting between ones of said electrical parts mounted on one of said wiring layers or connecting between ones of said electrical parts mounted on respective different ones of said wiring layers via at least one of said wiring layers [claim 6], wherein said ground line and said basic power supply line are each shaped substantially in a form of annulus (see figure 4B) and arranged adjacent to each other [claim 7].

Allowable Subject Matter

Claims 9, 12 and 15 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Claims 10, 11, 13, and 14 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 9 states the set of limitations "a second wiring layer constituting one of said wiring layers, and having a ground pattern formed at the outer edge of said second wiring layer, a second basic power supply line for supplying a different voltage from a voltage supplied by said first basic power supply line, said second basic power supply line being

formed at a position where said first basic power supply line is projected when said second basic power supply line and said first basic power supply line are projected on one projection plane". These limitations, in conjunction with the other claimed limitations were neither found to be disclosed in, nor suggested by the prior art. Claim 12 states the set of limitations "a second basic power supply line formed adjacent to and inside said ground line to supply a different voltage from a voltage supplied by said first basic power supply line; at least two power supply lines extending from respective ones of said first and second basic power supply lines; a plurality of electronic parts mounted on at least one of said wiring layers; and wherein said power supply lines are wired to mounting positions of said electronic parts via at least one of said wiring layers". These limitations, in conjunction with the other claimed limitations were neither found to be disclosed in, nor suggested by the prior art. Claim 15 states the set of limitations "said ground line formed at the outer edge of each of said wiring layers; a basic power supply line formed adjacent to and inside said ground line in each of said wiring layers". These limitations, in conjunction with the other claimed limitations were neither found to be disclosed in, nor suggested by the prior art.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 5,315,069	Gebara,
US 5,586,011	Alexander,
US 6,028,489	Juang et al.,


US 6,081,026 Wang et al..

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy C. Norris whose telephone number is 571-272-1932. The examiner can normally be reached on Tuesday - Friday, 10am - 7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on 571-272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-308-0725.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

JCSN


EVAN PERT
PRIMARY EXAMINER